

**Exploring corpora to solve language problems:
The case of colligation patterns for the verbs *to recommend* and *to suggest***

Carmen Gregori-Signes
Universitat de València-IULMA

Miguel Fuster-Márquez
Universitat de València-IULMA

1. Introduction

The purpose of this chapter is to illustrate how corpora and concordancing tools can help EFL (Learners of English as a Foreign Language) solve specific linguistic problems attested in their writing through the exploration of the corpus CASTLE, a learner corpus. One such problem was the incorrect use of the verbs *to recommend* and *to suggest*. The CASTLE corpus has 462,838 words and consists of 887 texts, collected between the years 2008 and 2015. The texts in CASTLE are all written productions of students from the Degrees of English Studies and Translation and Mediation Studies at the University of Valencia, and their language level ranges from intermediate to advanced levels (see Fernández-Domínguez this volume).

First we describe what is meant by *colligation*, paying attention to its relevance in corpus linguistics and its role in the process of learning English as a foreign language (EFL). Colligation draws learner's attention to the lexico-grammatical patterns of words, thus optimising the learning process

where words cannot be conceived in isolation, but as participants of relational patterns. A dictionary definition of the verbs *to recommend* and *to suggest* and their colligational patterns follows. Finally, the analysis of the results obtained through the exploration of CASTLE are discussed. There are numerous examples of deviant uses of *to recommend* and *to suggest* that can be easily corrected in the light of colligational patterns. As a way to illustrate the usefulness of the corpus methodology in a University context, the article compares the results obtained with a search on both verbs carried out in COCA (*Corpus of Contemporary American English*), a large native corpus of American English. The article proposes that students emulate this process as a way to learn about and correct their own errors. A pedagogical implication arising from this study is that the consultation of corpora by means of methodologies such as DDL (*Data-Driven Learning*) can be extremely useful if incorporated in EFL, since they provide students with instant access to a wide range of patterns of authentic native language samples which cannot be obtained through the consultation of grammars or dictionaries.

2. Corpus Linguistics: Colligation

Firth (1957/1968: 183) sees colligation as ‘the interrelation of grammatical categories in syntactical structure’. The term *colligation* is part and parcel of the description of lexical units, and refers to required relational grammatical categories (see Stubbs 2002: 87-88). When dealing with lexical profiles, O’Keefe et al. (2007: 14) underscore the need of knowing the syntactic patterns which restrict the usage of words, such as the prepositions a word can be followed by or its most frequent clause-

positions if learners wish to use vocabulary adequately in order to produce native-like sequences (cf. Jones & Waller 2015). Colligational patterns can be easily discovered by examining corpus concordances closely, through the use of KWIC (*Key Word In Context*) view, where the search term always appears in the centre of the screen surrounded by co-text (neighbouring words), in a number of concordance lines. The present article follows the trend established by studies which focus on one particular grammatical category, such as Gabrielatos (2007) and Biber et al. (1998) among others. More particularly, this contribution illustrates how relevant colligation is in the usage of the verbs *to suggest* and *to recommend*.

3. Colligational patterns of *recommend* and *suggest*

Grammars classify the verbs *recommend* and *suggest* under the category of performatives (Collins Cobuild English Grammar 1990) which is the label used for a large group of verbs that perform speech acts (Carter & McCarthy 2006: 422) when uttered - such as *advise, allow, apologise, ask, demand, deny, (dis)agree, forbid, insist, object, order, permit, predict, promise, state, suggest*. Performative verbs are those that do by saying, that is, “people sometimes explicitly say what function their statement is performing” and often they do so using the first person, although they may also be used as reporting the words of others. Performative verbs are often necessary to complete tasks that demand that the student make recommendations or suggestions. Among those, the verbs *recommend* and *suggest* are often misused by students at intermediate and advance levels. The data in CASTLE show that EFL learners are acquainted with certain

colligational patterns, they make use of non-native patterns, while other patterns are harder to grasp and thus underused.

3.1. Colligational patterns of to recommend

The verb *to recommend* is defined as a way “to suggest that (someone or something) would be a good or suitable for a particular job or purpose or to suggest that (a particular action) should be done” (*Cambridge International Dictionary of English* 1995: 1186). The colligation patterns for the lemma *recommend* are as follows:

RECOMMEND	+ object	<i>Can you recommend a good restaurant in Valencia</i> <i>I can recommend it to anyone interested in this subject</i>
	+ (that) + clause	<i>I recommend (that) he see a doctor</i> <i>I recommend (that) he should see a doctor</i> <i>I recommend (that) he sees a doctor</i>
	+ -ing	<i>I recommend changing your internet provider</i>
	+ object+ infin.	<i>Who recommended you to come here?</i>
	+ Prepositional Object (to/for)	<i>Please recommend us to your friends</i> <i>I recommended her for the job</i>

Figure 1. Colligation patterns for *recommend*

3.2. Colligational patterns of to suggest

The verb *to suggest* is also a common choice to make recommendations. It is listed as having three different meanings, distributed in different entries in the *Cambridge International Dictionary* (1995: 1456-1457):

- a. To mention (an idea, possible plan or action) for other people to consider

Might I suggest a white wine with your salmon, sir?

- b. To show/ express. To communicate or show (an idea or feeling) without stating it directly or giving proof.

Recent polls suggest that the government’s popularity is at an all time low.

- c. To produce an idea, to produce (an idea) in the mind (slightly formal).

He told me a story which suggested a plot for a novel.

The meaning explored in this article is a), i.e., to mention (an idea, possible plan or action) for other people to consider and its colligational patterns are the following:

SUGGEST	+ object	<i>Can you suggest a good restaurant in Valencia?</i>
	+ (that) + clause	<i>The authors suggest (that) these activities could be enhanced with the support of fertilizer</i> <i>+ I suggest (that) you get in touch with him immediately</i>
	+ -ing	<i>We suggest contacting the manufacturer directly</i>
	+ Prepositional Object (to/for)	<i>Only you can see the groups we suggest to you.</i>

Figure 2. Colligation patterns for *suggest*

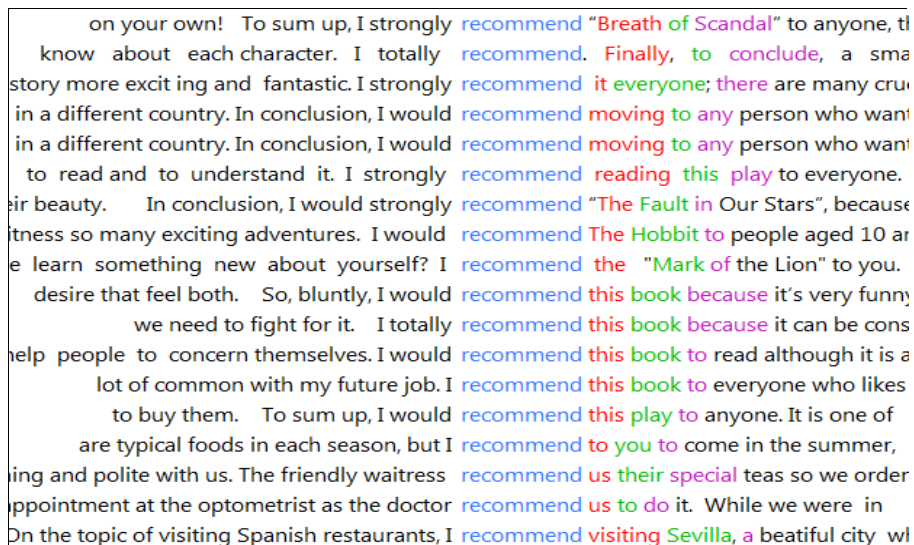
As observed above, the two verbs present similar colligational patterning but also some differences that are discussed below.

4. Analysing learners' performance in CASTLE

The tool KWIC provides concordance screens with the unit in the centre surrounded by some co-text (neighbouring words) both left and right, the sentences being truncated. This view differs from the more conventional Sentence View, which focuses on examples of full sentences. Reading vertically in KWIC view allows the researcher to notice the most relevant lexico-grammatical choices for search term and its neighbouring words in the corpus under analysis. Most often, as in these cases, a short context, four words left and four words right, is enough to discover the most relevant lexico-grammatical patterns of the search term. Gradually getting acquainted with this new approach offered by the KWIC view is a challenging but important first step for the efficient use of corpora containing large amounts of data. Figure 3 below illustrates some of the concordances obtained when exploring CASTLE.

4.1. Recommend

An overview of the data in CASTLE in Figure 3 shows that there is a large number of concordance lines, hence cases in which the students use the colligational patterns of the verbs correctly, as in *I recommend this book...*, or *I recommend visiting Sevilla, I strongly recommend reading this play to anyone*.



on your own! To sum up, I strongly recommend "Breath of Scandal" to anyone, to know about each character. I totally recommend. Finally, to conclude, a story more exciting and fantastic. I strongly recommend it everyone; there are many cruises in a different country. In conclusion, I would recommend moving to any person who wants to read and to understand it. I strongly recommend reading this play to everyone. Air beauty. In conclusion, I would strongly recommend "The Fault in Our Stars", because it has so many exciting adventures. I would recommend The Hobbit to people aged 10 and above. To learn something new about yourself? I recommend the "Mark of the Lion" to you. I desire that feel both. So, bluntly, I would recommend this book because it's very funny. We need to fight for it. I totally recommend this book because it can be considered a help for people to concern themselves. I would recommend this book to read although it is a bit different. A lot of common with my future job. I recommend this book to everyone who likes to buy them. To sum up, I would recommend this play to anyone. It is one of the typical foods in each season, but I recommend to you to come in the summer, being kind and polite with us. The friendly waitress recommends us their special teas so we order an appointment at the optometrist as the doctor recommends us to do it. While we were in Spain. On the topic of visiting Spanish restaurants, I recommend visiting Sevilla, a beautiful city with

Figure 3: Screenshot of the concordance "I ---recommend" in CASTLE

However, there are also many examples of misuse which deserve attention.

These respond to the following patterns:

- "I totally recommend".* Problem: omission of the object. Recommend is a transitive verb that needs an object.
- "I strongly recommend it everyone".* Problem: the preposition "to", introducing the indirect object is missing.
- "The friendly waitress recommend us their special teas".* Problem: the order should be "recommend" something TO someone.
- "I recommend to you to come to this restaurant".* Problem: The preposition *to* immediately after the verb introducing the indirect object is incorrect.

Some of the errors are quite idiosyncratic, affecting individual students, and do not allow us to conclude that these are common errors made by learners. However, there is a plausible generalisation that can be made. When one considers all the different instances shown in the concordance above, it is evident that learners have difficulties in mastering the different colligational patterns of this verb. More striking are the concordance lines

in Figure 4, where the search string is *I * recommend you* appears to be a common word combination among learners in CASTLE:

in Spain, don't worry about that. I recommend you a restaurant in my town which serves
 want to go to a restaurant, I would recommend you (cid:8220)El Canyamell(cid:8221). It
 tapas' and a good atmosphere, I definitely recommend you going to "El pantaló", a char
 cook everything with olive oil. I could recommend you my favourite restaurant—it's ca
 anded. There are much local restaurants but I recommend you one called The Sun. It is located
 villages, bars and restaurants but I do not recommend you one restaurant specifically because
 order to find out about traditional food I recommend you the successful restaurant which is b
 and restaurants are quiet busy. I don't recommend you to come in Summer because it
 you want to come to Spain, I would recommend you to come in summer, since it's
 lot of dishes made with meat. But I recommend you to come to the east part where
 manners from different people. I'd definitely recommend you to go to "Jerónimo's Restaurant" whi
 are eating at some restaurants or bars. I recommend you to go to a restaurant here
 talk. As to the local restaurant, I would recommend you to go to Eunice, a restaurant pla
 yourite one is "La Genuina", where I highly recommend you to go since it will inspire
 rice, meat, fish and lots of oil. I recommend you to go to "Moby Dick" were you
 some typical restaurants here in my country, I recommend you to go to "El Bulli". It's
 e their illusion and their dreams. I highly recommend you to read this book in a carefully
 consider them in perspective. So I recommend you to use computers rationall
 about the best Spanish restaurants here! I recommend you to visit "El Coralet". It's in

Figure 4. Screenshot of the concordance “I * recommend” in CASTLE

Two patterns which are common here are:

- a. “*I recommend you a restaurant*”. Problem: it represents the case of misuse highlighted in the concordance above, where the order should be “*recommend something TO someone*”. This has been discussed above in relation to the learner’s example: “*The friendly waitress recommend us their special teas.*”
- b. “*I recommend you to go*”. Problem: the pattern *recommend + YOU + (to) INF*, may constitute a case of excessive use (or overuse) or even misuse, according to various sources.

Thus it seems that these problems could be addressed below in the light of our consultation of native corpora in section 5.

4.2. Suggest

The screenshot below shows different meanings and the corresponding colligational patterns related to the use of the word form *suggest* obtained from CASTLE.

personal choice, and nobody has the right to suggest his decision, but in this kind of society
 es, as for example, outdoors (as these scientists suggest) in order to increase important social sk
 . I asked my mother but she didn't suggest me nothing, as it was my decision and
 us to really feel, and as the title suggest move our hearts trough the feelings. It wa
 not travel with that company and does not suggest others to use this company which represent
 an adult by a force. To conclude, I suggest reading that book because it teaches you t
 dishes, or feeling like a slave. Some studies suggest that men's resistance to housework starts
 or that companies make such measures, but I suggest that people when choosing look for their
 should I do a master's degree? Statistics suggest that people with master's qualifications a
 I not known. As the text says, "Statistics suggest that people with master's qualifications a
 what we eat on our daily life, I suggest that, rather than go to restaurants, you
 rmation. Firstly, the article overall statistics suggest that students that have master then find
 about one third of the list. That would suggest that they are indeed less popular with the
 ily activities; because of this reason scientists suggest the adoption of continental time in Britai
 nreliable source can be trusted, I would strongly suggest them to try to explain how to select
 doubt this is discriminating for women, so I suggest to change some "male" expressions that inv
 hat Spanish people usually cook at home, I suggest you asking all my friends and family abo
 travel around the world to get ideas! I suggest you come to Spain in the summer because
 out what people usually cook at home, I suggest you interview people on the street or go

Figure 5. Screenshot of the concordance "suggest" in CASTLE

There again, some concordance lines in Figure 5 show correct and incorrect use of the verb by learners. The problematic cases belong to of the three types exemplified below:

- a) *"She didn't suggest me nothing"*. Problems (1) instead of *she didn't suggest anything (to me)*; (2) the order of the direct object and prepositional object is reversed.
- b) *"I would strongly suggest them to try to explain"*. Problem: learners use a colligational pattern inexistent in English. They should have used *suggest that + clause* as: *I would suggest that they try to explain*.
- c) *"I suggest you asking all my friends"*. Problem: the use of object *you + -ing* form is deviant. Instead of *I suggest (that) you ask all my friends*. That is, only when the subject is the same, we use the *-ing* form as in *I suggest taking my car instead*.

As illustrated by the discussion above, in order to solve the problem with *suggest*, students need to focus not only on lexico-grammatical choices but also in the pragmatic function behind different colligational choices. For example, *suggest + -ing* implies that the speaker does not want the reader

to believe that the suggestion comes from anyone in particular; it is an impersonal suggestion (directive) that may or may not be followed.

5. Observation of the colligational patterns of *recommend* and *suggest* in native corpora

One possible way to learn about the colligational features attached to the verbs *recommend* and *suggest* or, by the same token, to any other English word or word combination is to consult dictionaries of grammars. The drawback is, however, that due to limitations in space mainly, dictionaries and grammars do not always offer a sufficient number of relevant examples that would allow a faster comprehension of the word or expression. Consulting a freely accessible reference corpus, therefore, could make up for this deficiency.

In this regard, as a way to contrast with the results obtained in CASTLE, COCA (corpus.byu.edu), a reference corpus of Contemporary American English of 430 million words collected between the years 1992-2000 has been consulted. Due to space limitations, this article focuses only on the four specific lexico-grammatical patterns listed below in order to illustrate the usefulness of this method.

1. (I) *recommend you to*
2. (I) *recommend that you*
3. (I) *suggest that you*
4. (I) *suggest you*

The concordance screens obtained are not only useful as a reference against which students can compare their own use of the verbs but also illustrate other colligational patterns to think about in future explorations.

5.1. to recommend *in COCA*

A consultation of frequencies in COCA of the sequence *recommend* that you* yields the results shown below. Please note that the use of the star symbol after *recommend* in our search will give all the instances of the lemma (*recommend, recommends, recommended* and *recommending*).

A) *recommend* that you*

RECOMMEND THAT YOU	216
RECOMMENDS THAT YOU	98
RECOMMENDED THAT YOU	44
RECOMMENDING THAT YOU	15

B) *recommend* you to*

RECOMMEND YOU TO	5
RECOMMENDED YOU TO	3
RECOMMENDING YOU TO	1

Therefore, a total of 373 cases are found in COCA of the pattern *recommend* that you*. By contrast, only 9 cases of the alternative *recommend you to*. When checking these results against those in CASTLE, it becomes clear that learners hardly ever use the common pattern *recommend* that you*, which might have been the most standard substitute for *recommend you to*.

A careful analysis of the concordances for *I recommend* (933 cases) manifest the existence of other interesting (and competing) colligational patterns. The students attention should be drawn towards the fact the

grammatical (colligational) features of the object and verb forms that follow both verbs. They could try to work out inductively the grammar rules that operate them.

standard that meets an objective . In this respect ,	I recommend	to you a	publication	from the Brookings Institute by Alan Sykes ,
I ever read in the German language . Oh !	I recommend	to you all	of	the treasure that God is in himself and
) . " For something more adventuresome ,	I recommend	two	memorable	routes , both of which start in Asciano : The
? This is the safest approach , and the one	I recommend	unless	you have	some basis for thinking that you do have a
that " literacy " includes " capabilities , " but	I recommend	use	of	the latter because many in the workforce education fields
, speaks four languages . Makes the phrase " May	I recommend	using	an	offshore bank for the transaction ? " sound as if
comes back each time the plants are watered . #	I recommend	using	organic	pesticides such as insecticidal soap or rubbing
the fibers are nearly dry to the touch ; (	I recommend	using	slightly	dampened paper towels for this step since a dry
just wanted to leave word at this particular time that	I recommend	vehemently	vehemently	against parole and hope that Nathan
of a falling rock . As Superman 's defense lawyer	I recommend	we	counterclaim	and sue the people who make the Superman comics
Bryan . " You with the learner 's permit .	I recommend	you	be	the designated driver . " He put some cash on
trees , and draw lines and arrows of relationship .	I recommend	you	do	the same . The investment is small and the profit
mineral water washes away all your cares and stress .	I recommend	you	get	a reservation if you 're headed there on a weekend
and phytochemicals found in high-fiber foods , which is why	I recommend	you	get	fiber from whole foods in your diet . # Katherine
to V-grooves HOW TO GET MORE SPIN FROM YOUR WEDGES	I RECOMMEND	you	get	the with a set of high-spin box-grooved wedges . Combined
Before you laud so much praise on the doctor ,	I recommend	you	watch	a procedure . There are plenty of Web sites on
I do not take money from any company whose products	I recommend	I	fund	my own research and 100 percent of my royalties
Dave Van Ronk , and later Stefan Grossman , whom	I recommend	I	watched	the progress of one young neighbor whom he taught
persona still holds sway . There is a little treatment	I recommend	I	isolation	Once you 're alone , the stronger part of
editor , features , for PC World Online , Sidebar	I Recommend	...	MICROSOFT	IS INTERNET Explorer 4.0 for Windows 95-once its

Figure 6. Screenshot of the concordance "I recommend" in COCA (corpus. byu. edu)

5.2. to suggest in COCA

A consultation of frequencies for the pattern *suggest* that you*, where the star symbol may capture all the forms of the lemma, yields these results

SUGGEST THAT YOU	336
SUGGESTS THAT YOU	145
SUGGESTING THAT YOU	88
SUGGESTED THAT YOU	59

There are 628 instances of this sequence in COCA. The sequence *I suggest you + INF.* is somewhat less frequent, with a total of 339. The results obtained through CASTLE indicate that learners tend to use the second alternative more often. Furthermore, as is the case with recommend, the sequence *I suggest that you...* is hardly ever used by students.

In turn, there are 2,108 examples of the bigram *I suggest*. Out of those, the sequence *I suggest you*, which was identified as one of the most problematic in CASTLE, has been given special attention.

# in his area . # No doctors . What	I suggest	we	do	instead	is	put on our wigs , sit on the
certain he knows nothing of the stone . Now ,	I suggest	we	pay	a	visit	to the Alpha Club . SCENE 4 THE
problem will not go away . Any fiscal stimulus that	I suggest	we	use	it	think	has to be double duty anyway , and
what he 's about and who he stands for ,	I suggest	you	analyze	the	March	veto of the middle class tax cut DOBBS
mean graft and ? # LOEB # (interrupts)	I suggest	you	be	a	little	more selective in your manner of speech ,
.) If you find this hard to believe ,	I suggest	you	check	with	my	neighbor , Mrs. Mitchley , who eagerly
very coarse , and not many people like it .	I suggest	you	choose	something	else	. " And so he did , although
Kill " You ever seen a man executed ? What	I suggest	you	do	is	you	go watch a man be executed .
# An unpleasant sharpness edged its voice . " Then	I suggest	you	find	your	superior	. Immediately . " # I nodded .
tell your family or even set a wedding date ,	I suggest	you	get	premarital	advice	from a minister , spiritual leader or
black men " into a life of crime . "	I suggest	you	go	back	up	to Pleasantville , " he concluded . #
you 're in no condition to talk to anyone .	I suggest	you	go	home	and	sober up , and come back again tomorrow
was just thinking the same thing about you : Now	I suggest	you	go	mingle	with	the media . " " But I 'm
" # " Toward the ocean , naturally . So	I suggest	you	might	try	turning	right at the next street . " #
that was embarrassing . " // Klag grinned . "	I suggest	you	report	to	yourself	, Doctor . And Kurak ? How much
TERRELL : Excuse me , with all due respect ,	I suggest	you	review	the	instruction	and that 's the only concern that the
# " Yes , Mother . " # " Then	I suggest	you	stop	stuffing	yourself	like a pig at every meal , or
neighbor tosses me a roll of duct tape . "	I suggest	you	use	some	of	this , " he says , " unless
churchgoers and nonchurchgoers in terms of their core values ;	I suggest	you	ve	just	found	it . Against the theology and practices of

Figure 7. Screenshot of the concordance "I suggest you" in COCA (corpus.byu.edu)

Since the colligational pattern of suggest offers the possibility of omitting *that*, making the students pay attention to these examples may help them overcome the most common mistake which is to use suggest + *-ing* with a different subject and when one specifically wants to make explicit to whom the suggestion is addressed to.

6. Conclusion

This article argues in favour of using corpus linguistics tools to solve specific problems that learners may have in relation to colligational patterns. As a way to exemplify it, the patterns for the verbs *to recommend* and *to suggest* have been explored in CASTLE, a written corpus of Spanish learner of English. Once their use was ascertained as problematic for them, the

article proposes as a possible solution to consult prestigious and freely accessible corpora, such as COCA, as a remedial action to solve their problems in an independent and effective way. As exemplified in the examples above, the concordance lines retrieved from COCA can help understand number of colligational features where learners may draw insightful conclusions. An important conclusion is that the parallel colligational sequences: *I recommend that you* and *I suggest that you* are underused. A second relevant conclusion is that, while they know the meaning of both verbs, they do not seem to master the most common colligational patterns, and mistakes of different types are frequent.

It is certain that getting some expertise in the usage of corpora tools and the interpretation of concordances requires some guidance by teachers, but after a brief period of training, corpora tools may become crucial to have in-depth knowledge of a very large number of linguistic problems at all levels, and more particularly at advanced stages in language learning.

7. Now it's your turn! How can I learn about the verbs *recommend* and *suggest*?

A crucial point about the exploration of concordances in *Data-Driven Learning* (DDL) activities is that students attempt to reach conclusions about usage through their own autonomous observation and analysis. However, both selection and interpretation stages are not easy tasks. For example, it may be difficult to interpret initial frequencies, and contrasts between frequencies when facing possible rival patterns. In such cases, it is

convenient to pay attention to and learn about the most common patterns of use.

Naturally, corpora do not speak, and do not give rules. Conclusions should be entirely grounded on your own findings after a careful interpretation of the results obtained for *to recommend* and *to suggest*. So first, observe the concordance lines included in this article very carefully and see what patterns emerge from there.

Secondly, check the syntactic rules we provided you with earlier, and any other grammar rule/s you believe may be relevant. Always bear in mind that you should focus on specific meanings, and not to “words” in an abstract sense. Therefore, focus on the meanings explored here and attempt to reconstruct their colligational pattern(s). Finally, note down differences and similarities between the colligational patterns provided by the grammars and dictionaries you have consulted and those which come from your own observation. It is also a good idea to illustrate each pattern with one or two examples taken from your own exploration of COCA.

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